CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.08/MBH/CEMENT/2014-15 Date: 10.10.2014

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
AGENCY	:	**Mr. M.B. Hombal,** Contractor, Bangalore.
NAME OF THE WORK	:	Construction of 2nd floor Samudaya Bhavana at Maruthinagara in Ward No. 08 (Kodigehalli), Kodigehalli Sub Division, BBMP, Bangalore.
REFERENCE	:	EE/BTP/BMBP/E-PMT/WO/98/2013-14 Dated: 26.07.2013
SAMPLE ID	:	CEMENT
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-1989
1	Standard Consistency	IS-4031 (Part -4)	28.50 %	-
2	a) Initial Setting Time	IS-4031 (Part -5)	190 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	475 Minutes	Not More than 600 Minutes
3	Soundness by the Le-Chatelier method	IS-4031 (Part 3)	1 mm	Not more than 10 mm

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Job No.: CTCE/BBMP/W.No.08/MBH/SAND/2014-15 : 10.10.2014

TEST REPORT ON FINE AGGREGATES (SAND)
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Mr. M.B. Hombal,** Contractor, Bangalore.

Name of Work : Construction of 2nd floor Samudaya Bhavana at Maruthinagara in Ward No. 08 (Kodigehalli), Kodigehalli Sub Division, BBMP, Bangalore.

Reference : EE/BTP/BMBP/E-PMT/WO/98/2013-14 Dated: 26.07.2013

Date of Testing : 10.10.2014

Material : Sand Total Wt. of Aggregates in gms **1000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	78	7.80	7.80	92.2	90-100
2.36	153	15.30	23.10	76.9	75-100
1.18	192	19.20	42.30	57.7	55-90
600 Micron	192	19.20	61.50	38.5	35-59
300 Micron	257	25.70	87.20	12.8	8-30
150 Micron	109	10.90	98.10	1.9	0-10

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Job No.: CTCE/BBMP/W.No.08/MBH/AGG/2014-15 : 10.10.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Mr. M.B. Hombal,** Contractor, Bangalore.

Name of Work : Construction of 2nd floor Samudaya Bhavana at Maruthinagara in Ward No. 08 (Kodigehalli), Kodigehalli Sub Division, BBMP, Bangalore.

Reference : EE/BTP/BMBP/E-PMT/WO/98/2013-14 Dated: 26.07.2013

Date of Testing : 10.10.2014

Material : 40mm Aggregates

Total Wt. of Aggregates in gms **25100**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	937	3.73	3.73	96.27	95-100
20	15236	60.70	64.43	35.57	30-70
10	5367	21.38	85.82	14.18	10-35
4.75	3215	12.81	98.63	1.37	0-5

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Job No.: CTCE/BBMP/W.No.08/MBH/STEEL/2014-15 10.10.2014

TEST REPORT ON REINFORCEMENT STEEL

Customer	:	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	:	**Mr. M.B. Hombal,** Contractor, Bangalore.
Name of the Work	:	Construction of 2nd floor Samudaya Bhavana at Maruthinagara in Ward No. 08 (Kodigehalli), Kodigehalli Sub Division, BBMP, Bangalore.
Reference	:	EE/BTP/BMBP/E-PMT/WO/98/2013-14 Dated: 26.07.2013
Date of Test	:	10.10.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	8	0.40	511	554	13.10	O.K	O.K

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Job No.: CTCE/BBMP/W.No.08/MBH/STEEL/2014-15 10.10.2014

TEST REPORT ON REINFORCEMENT STEEL

Customer	:	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	:	**Mr. M.B. Hombal,** Contractor, Bangalore.
Name of the Work	:	Construction of 2nd floor Samudaya Bhavana at Maruthinagara in Ward No. 08 (Kodigehalli), Kodigehalli Sub Division, BBMP, Bangalore.
Reference	:	EE/BTP/BMBP/E-PMT/WO/98/2013-14 Dated: 26.07.2013
Date of Test	:	10.10.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	10	0.62	514	558	13.25	O.K	O.K

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TEST REPORT ON REINFORCEMENT STEEL

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Agency	:	**Mr. M.B. Hombal,** Contractor, Bangalore.
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Date of Test	:	10.10.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	12	0.89	518	561	13.40	O.K	O.K

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Job No.: CTCE/BBMP/W.No.08/MBH/CUBE/2014-15 12.11.2014

TEST REPORT ON CONCRETE CUBES

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Mr. M.B. Hombal**, Contractor, Bangalore.

Name of the work : Construction of 2nd floor Samudaya Bhavana at Maruthinagara in Ward No. 08 (Kodigehalli), Kodigehalli Sub Division, BBMP, Bangalore.

Reference : EE/BTP/BMBP/E-PMT/WO/98/2013-14 Dated: 26.07.2013

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	15.10.2014	12.11.2014	8.145	483.7	21.50
2	15.10.2014	12.11.2014	8.236	501.4	22.28
3	15.10.2014	12.11.2014	8.349	526.5	23.40

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Client	: **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
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Reference	: EE/BTP/BMBP/E-PMT/WO/98/2013-14 Dated: 26.07.2013
Sample ID	: Cement Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	15.10.2014	12.11.2014	8.095	473.5	21.04
2	15.10.2014	12.11.2014	8.132	494.2	21.96
3	15.10.2014	12.11.2014	8.246	511.7	22.74

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25.11.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	: **Mr. M.B. Hombal**, Contractor, Bangalore.
Name of the work	: Construction of 2nd floor Samudaya Bhavana at Maruthinagara in Ward No. 08 (Kodigehalli), Kodigehalli Sub Division, BBMP, Bangalore.
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Sample ID	: Cement Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	28.10.2014	25.11.2014	8.146	472.8	21.01
2	28.10.2014	25.11.2014	8.257	499.5	22.20
3	28.10.2014	25.11.2014	8.315	489.4	21.75

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TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	: **Mr. M.B. Hombal**, Contractor, Bangalore.
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Sample ID	: Cement Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	28.10.2014	25.11.2014	8.134	479.8	21.32
2	28.10.2014	25.11.2014	8.218	494.1	21.96
3	28.10.2014	25.11.2014	8.329	513.3	22.81

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